## MARKED UP VERSION OF THE CLAIMS

22. (currently amended) A method for treating a gonadotrophin related illness in a mammal, said method comprises the step of administering to the mammal a therapeutically effective amount of an agent, the agent comprises:

a light chain component comprising a light chain, ~~or a fragment thereof~~, of a botulim~~n~~num toxin, a butyricum toxin, or a tetani toxin ~~or variants thereof~~,

a translocation component comprising a heavy chain, ~~or a modified heavy chain~~, of a botulim~~n~~num toxin, a butyricum toxin, or a tetani toxin ~~or variants thereof~~ and

a targeting component which comprises a GnRH or a GnRH analog, wherein the targeting component selectively binds to a GnRH receptor wherein the gonadotrophin related illness is selected from the group consisting of breast cancer, prostate cancer, pancreatic cancer, and endometrial cancer,

thereby treating a gonadotrophin related illness.

23. (cancelled)

24. (new) The agent according to claim 22 wherein the light chain component decreases the release of a hormone from a cell.

25. (new) The agent according to claim 22 wherein the light chain component comprises a light chain of a botulinum toxin type A, B, $C_1$, D, E, F, or G.

26. (new) The agent according to claim 22 wherein the light chain component comprises a light chain of a botulinum toxin type A.

27. (new) The agent according to claim 22 wherein the translocation component comprises a heavy chain of a botulinum toxin type A, B, $C_1$, D, E, F, or G.

28. (new) The agent according to claim 22 wherein the translocation component comprises a heavy chain of a botulinum toxin type A.

29. (new) A method for treating a gonadotrophin related illness in a mammal, said method comprises the step of administering to the mammal a therapeutically effective amount of an agent, the agent comprises:

a light chain component comprising a light chain, of a botulinum toxin type A, B, $C_1$, D, E, F, or G,

a translocation component comprising a heavy chain of a botulinum toxin type A, B, $C_1$, D, E, F, or G, and

a targeting component which comprises a GnRH or a GnRH analog, wherein the targeting component selectively binds to a GnRH receptor wherein the gonadotrophin related illness is selected from the group consisting of breast cancer, prostate cancer, pancreatic cancer, and endometrial cancer,

wherein the light chain component decreases the release of a hormone from a cell, thereby treating a gonadotrophin related illness.

30. (new) The agent according to claim 29 wherein the light chain component comprises a light chain of a botulinum toxin type A.